

## **IMPLEMENTATION SCHEDULE**

The Implementation Schedule that follows describes recovery task priorities, task numbers, task descriptions, duration of tasks, potential or participating responsible parties, total cost estimate, estimates for the next five years, if available, and comments. These tasks, when accomplished, are expected to lead to recovery of bull trout in the Hood River Recovery Unit. Cost estimates are not provided for tasks that are normal agency responsibility under existing authorities.

Parties with authority, responsibility, or expressed interest to implement a specific recovery task are identified in the Implementation Schedule. Listing a responsible party does not imply that prior approval has been given or require that party to participate or expend any funds. However, willing participants may be able to increase their funding opportunities by demonstrating that their budget submission or funding request is for a recovery task identified in an approved recovery plan, and is therefore part of a coordinated effort to recover bull trout. In addition, section 7 (a)(1) of the Endangered Species Act directs all Federal agencies to use their authorities to further the purposes of the Endangered Species Act by implementing programs for the conservation of threatened or endangered species.

The following are definitions to column headings in the Implementation Schedule:

Priority Number: All priority 1 tasks are listed first, followed by priority 2 and priority 3 tasks.

Priority 1: All actions that must be taken to prevent extinction or to prevent the species from declining irreversibly in the foreseeable future.

Priority 2: All actions that must be taken to prevent a significant decline in species population or habitat quality or to prevent some other significant negative effect short of extinction.

Priority 3: All other actions necessary to provide for full recovery (or reclassification) of the species.

Task Number and Task Description: Recovery tasks as numbered in the recovery outline. Refer to the action narrative for task descriptions.

Task Duration: Expected number of years to complete the corresponding task. Study designs can incorporate more than one task, which when combined may reduce the time needed for task completion.

Responsible or Participating Party: The following organizations are those with responsibility or capability to fund, authorize, or carry out the corresponding recovery task. **Bolded type** indicates the agency or agencies that have the lead role for task implementation and coordination, though not necessarily sole responsibility.

BLM	U.S. Bureau of Land Management
BPA	Bonneville Power Administration
CTWSR	Confederated Tribes of the Warm Springs Reservation
ES	U.S. Fish and Wildlife Service, Ecological Services
FERC	Federal Energy Regulatory Commission
HCPG	Habitat Conservation Planning Group
HRC	Hood River County
HRWG	Hood River Watershed Group
ID	Irrigation districts
LCDC	Oregon Land Conservation and Development Commission
LFC	Longview Fibre Company
MFID	Middle Fork Irrigation District
NMFS	National Marine Fisheries Service
NPPC	Northwest Power Planning Council
NRCS	Natural Resources Conservation Service
ODA	Oregon Department of Agriculture
ODEQ	Oregon Department of Environmental Quality
ODFW	Oregon Department of Fish and Wildlife

ODOF	Oregon Department of Forestry
ODOT	Oregon Department of Transportation
OSP	Oregon State Police
OWEB	Oregon Watershed Enhancement Board
PC	PacifiCorp
RUT	Bull Trout Recovery Unit Team
SWCD	Soil and Water Conservation Districts
TMDLWG	Total Maximum Daily Load working group
USCOE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WC	Watershed Councils

Cost estimates: Cost estimates are rough approximations and are provided only for general guidance. Total costs are estimated for the duration of the task, are itemized annually for the next five years, and include estimates of expenditures by local, Tribal, State, and Federal governments and by private businesses and individuals.

An asterisk (\*) in the total cost column indicates ongoing tasks that are currently being implemented as part of normal agency responsibilities under existing authorities. Because these tasks are not being done specifically or solely for bull trout conservation, they are not included in the cost estimates. Some of these efforts may be occurring at reduced funding levels and/or in only a small portion of the watershed.

Double asterisk (\*\*) in the total cost column indicates that estimated costs for these tasks are not determinable at this time. Input is requested to help develop reasonable cost estimates for these tasks.

Implementation schedule for the bull trout recovery plan: Hood River Recovery Unit											
Task Priority	Task Number	Task Description	Task Duration (years)	Responsible Parties	Cost Estimates(in \$1,000 units)						Comments
					Total Costs	Year 1	Year 2	Year 3	Year 4	Year 5	
1	1. 2. 1	Reestablish connectivity at Clear Branch Dam	5	MFID, USFS, ODFW, USFWS	75	5	10	25	25	10	
1	1. 2. 2	Provide passage at Coe Branch Diversion	5	MFID, ODFW, USFS, USFWS, NMFS	1000	10	10	900	60	20	
1	1. 2. 3	Determine passage options at Tony Creek and Powerdale Dam	5	ODFW, PC, HRWG, USFWS	250	5	10	175	35	25	
1	1. 2. 6	Screen diversions and ditches	7	ODFW, BPA, USFWS, ID	2000	150	150	150	150	300	
1	3. 1. 1	Incorporate bull trout recovery into State and regional conservation plans	5	ODFW, HRWG, OWEB	150	30	30	30	30	30	
1	3. 1. 2	Integrate research results	25	USFWS, ODFW, USFS,	500	20	20	20	20	20	
1	3. 1. 3	Restore forage (prey) base	25	ODFW, USFWS, BPA	4000	200	200	200	200	200	Salmon restoration activities
1	3. 1. 4	Coordinate with other recovery efforts	25	USFWS, ODFW, USFS, HRWG, NMFS	*						Part of existing funded efforts

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					<b>Total Costs</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	
1	5. 1. 1	Evaluate restoration effectiveness	25	<b>ODFW, USFS, HRWG, USFWS, BPA</b>	**						Costs depend on the number of completed projects
1	5. 2. 3	Investigate bull trout ecology in Laurance Lake	5	<b>ODFW, USFS, ID, BPA</b>	150	30	30	30	30	30	Several years needed to deal with variation
1	5. 2. 5	Determine extent of use of the Columbia River	25	<b>ODFW, WDFW, USFWS, BPA, USCOE</b>	500	50	50	50	50	50	Task may be able to utilize existing or planned infrastructure
1	5. 6. 1	Gather more detailed life history information.	10	<b>ODFW, USFS, BPA, USFWS</b>	500	50	50	50	50	50	Some aspects of this action are ongoing in the basin.
1	6. 1. 3	Cooperate on Columbia issues	25	<b>ODFW, WDFW, USCOE,</b>	*						Part of the existing funded efforts
1	6. 1. 4	Cooperate with Tribes	25	<b>USFWS, ODFW, HRWG, USFS,</b>	*						Part of existing funded efforts
1	6. 1. 5	Identify and utilize all potential recovery resources	25	<b>USFWS, RUT</b>	*						Part of the USFWS mission

Implementation schedule for the bull trout recovery plan: Hood River Recovery Unit											
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					Total Costs	Year 1	Year 2	Year 3	Year 4	Year 5	
1	6. 2. 1	Incorporate recovery tasks into FERC relicensing	1	USFWS, FERC	*						Applicable tasks may be used as terms and conditions or conservation recommendations
2	1. 1. 1	Reduce general sediment sources	Perpetual	HRC, ID, LF, ODOT, USFS, ODF, ODFW,	**						See road assessment in Watershed Assessment
2	1. 1. 2	Reduce nutrient and chemical runoff	Perpetual	ODEQ, ODA, USEPA, HRGSA,	**						Ongoing and changes with landowner and new
2	1. 1. 3	Improve water temperature below Laurance Lake during spawning period	5	MFID, ODEQ, USEPA, USFS, USFWS, USGS	1500	20	20	1000	410	50	Needs further research; MF mainstem,
2	1. 2. 4	Improve fish passage at road crossings	Ongoing	ODFW, LFC, OWEB, USFS	**						Pinnacle Creek bridge completed 2002.

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					<b>Total Costs</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	
2	1. 2. 5	Determin the presence and extent of gas supersaturation at Powerdale and Clear Branch Dams	3	<b>USFWS, ODFW, ID, PC</b>	10	2	4	4			Actual costs will depend on any structural improvements
2	1. 3. 1	Protect and restore riparian zones	25	<b>USFS, HRC, NRCS, HRWG,</b>	375	25	25	25	25	25	
2	1. 4. 1	Evaluate effects of Columbia River Dams	10	<b>USFWS, USCOE, BPA,</b>	500	50	50	50	50	50	Initial consultation completed
2	3. 2. 1	Assess impact of incidental harvest	25	<b>ODFW, OSP, CTWSR, USFS</b>	450	18	18	18	18	18	Creel and enforcement time
2	3. 2. 2	Assess hooking mortality	5	<b>ODFW, USFWS</b>	100	20	20	20	20	20	
2	3. 2. 3	Refine angling regulations	Ongoing	<b>ODFW, USFS, USFWS</b>	50	2	2	2	2	2	Ongoing
2	3. 2. 4	Continue fish identification education	Ongoing	<b>ODFW, USFS, USFWS</b>	100	4	4	4	4	4	Ongoing

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2	5. 1. 2	Coordinate with other monitoring efforts	25	ODFW, USFS, BPA, CTWSR, USFWS,	*						Part of existing funded efforts
2	5. 2. 1	Assess threats from catastrophic events	3	ODFW, USFS, USFWS, BPA	50	20	20	10			
2	5. 2. 2	Incorporate recovery efforts into county plans	25	ODFW, ODEQ, CTWSR, HRWG	50	2	2	2	2	2	
2	5. 2. 4	Evaluate food web	10	ODFW, USFS, BPA, USFWS	250	50	50	20	20	20	
2	5. 4. 2	Research eye abnormalities	4	ODFW, USFS, USFWS, BPA	150	40	40	35	35		
2	6. 1. 1	Support local restoration/conservation efforts	25	USFWS, ODFW, HRWG, USFS	*						



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2	6. 1. 2	Provide long-term habitat protection	25	USFWS, HRWG, OWEB, USFS	500	25	25	25	25	25	
3	1. 2. 7	Improve instream flows	15	ODFW, BPA, USFS, ID, HRWG, WC	200	30	15	15	15	15	Related to 1.2.6
3	1. 3. 2	Restore channel conditions	15	USFS, ODFW, HRWG, NRCS, USFWS	2000	50	50	50	50	50	
3	3. 1. 5	Establish bull trout in other areas	15	ODFW, BLM, USFS, USFWS	250	10	20	25	25	25	
3	5. 4. 1	Monitor to detect pathogen effects	25	ODFW, CTWSR, USFS, USGS	125	5	5	5	5	5	Fish Disease Lab in Underwood, Washington.

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3	6. 1. 6	Prepare and distribute educational materials	3	RUT, ODFW, USFS, USFWS	50	20	20	10			Should be able to use information from other units
3	6. 1. 7	Facilitate media coverage	<1	ODFW, USFS,	*						Staff time will need to be
3	7. 3. 1	Periodically review progress towards recovery goals and assess recovery task priorities	Perpetuity	USFWS, RUT	*						